

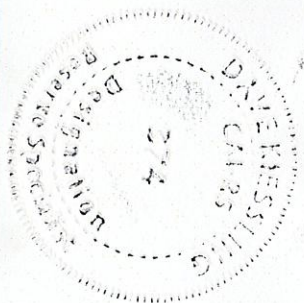
RESERVE STUDY UPDATE
ARBOR TERRACE CONDOMINIUM ASSOCIATION
LONG BRANCH, NEW JERSEY
EFFECTIVE: OCTOBER 1, 2019



PREPARED BY:

DAVE KIESSLING, RS No. 374

DWSA Job Number 17-290.08



1450 State Route 34, Wall Township, NJ 07753 • P (732) 363-5850 • F (732) 905-8669
www.dwsmith.com

Designing Special Places for People to Live, Work, and Play

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INTRODUCTION

Financial Planning

One of the primary responsibilities of the Board Trustees or Directors is to make sure the property is protected and maintained. Good financial planning and budgeting is a major part of ensuring a property or community is maintained properly and adequate funds are available for this purpose.

The primary goal of capital reserve planning is to provide adequate funding for the replacement of the capital components within the community. Good planning will distribute the expenditures for these projects among the owners over many years, making the funds available when they are needed. An adequate capital reserve fund will eliminate the need for large fee increases, special assessments and loans.

Capital Reserve Study

A Capital Reserve Study is a financial planning tool prepared to provide an estimate of the amount of money that should be held in reserve by the Community Association for future replacements of various common area components within the community. This report has been prepared to comply with the Community Association Institute (CAI) National Reserve Study Standards as a guide to evaluate and establish a stable level of reserve funding for those anticipated replacements.

Level of Service

The following level of service was provided:

II. Update, With Site Visit/On-Site Review. A reserve study update in which the following five reserve study tasks are performed:

- Component inventory (verification only, not quantification)
- Condition assessment (based on on-site visual observations)
- Life and valuation estimates
- Fund status
- Funding plan

DESCRIPTION OF DEVELOPMENT

Arbor Terrace Condominium Association contains 44 residential Units within 2 buildings. The community is in located on Greens Avenue in Long Branch New Jersey off Cedar Avenue. Some of the common elements included in this community are the roads, walkways, fencing, irrigation system, building exteriors, lighting, boilers and well pumps.

COMMUNITY DESCRIPTION

Number of Units:	44
Type of Units	Condominium
Number and Type of Buildings	2 Condominium Buildings
Age of Community:	54 (circa 1964)

RESERVE FUND INFORMATION

Beginning Reserve Balance:	\$155,000
Funding Goal:	Full
Current Percent Funded:	23%
Current Annual Contribution:	\$50,000
Recommended Annual Funding:	\$105,459 and \$65,468
Averaging Length in Years:	2019 thru 2030 and 2031 thru 2048
Previous Reserve Study Prepared by:	Falcon Group
Previous Recommended Contribution	\$102,199

TERMS AND DEFINITIONS

CAPITAL IMPROVEMENTS: Additions to the association's common elements that previously did not exist. While these components should be added to the reserve study for future replacement, the cost of construction should not be taken from the reserve fund.

CASH FLOW METHOD: A method of developing a reserve funding plan where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different reserve funding plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.

COMPONENT: The individual line items in the reserve study developed or updated in the physical analysis. These elements form the building blocks for the reserve study. These components comprise the common elements of the community and typically are: 1. association responsibility, 2. with limited useful life expectancies, 3. predictable remaining useful life expectancies, and 4. above a minimum threshold cost. It should be noted that in certain jurisdictions there may be statutory requirements for including components or groups of components in the reserve study.

COMPONENT INVENTORY: The task of selecting and quantifying reserve components. This task can be accomplished through on-site visual observations, review of association design and organizational documents, review of association precedents, and discussion with appropriate representative(s) of the association.

COMPONENT METHOD: A method of developing a reserve funding plan where the total contribution is based on the sum of contributions for the individual components.

CONDITION ASSESSMENT: The task of evaluating the current condition of the component based on observed or reported characteristics.

EFFECTIVE AGE: The difference between useful life and remaining useful life. Not always equivalent to chronological age, since some components age irregularly. Used primarily in computations.

FINANCIAL ANALYSIS: The portion of a reserve study where the current status of the reserves (measured as cash or percent funded) and a recommended reserve contribution rate (funding plan) are derived, and the projected reserve income and expense over a period of time are presented. The financial analysis is one of the two parts of a reserve study.

FULLY FUNDED: 100 percent funded. When the actual (or projected) reserve balance is equal to the fully funded balance.

FULLY FUNDED BALANCE (FFB): An indicator against which the actual (or projected) reserve balance can be compared. The reserve balance that is in direct proportion to the fraction of life “used up” of the current repair or replacement cost. This number is calculated for each component, and then summed for an association total.

$FFB = \text{Current Cost} \times \text{Effective Age/Useful Life}$

Example: For a component with a \$10,000 current replacement cost, a 10-year useful life and effective age of 4 years the fully funded balance would be \$4,000.

FUND STATUS: The status of the reserve fund reported in terms of cash or percent funded.

FUNDING GOALS: Independent of methodology used, the following represent the basic categories of funding plan goals. They are presented in order of greatest risk to least risk. Risk includes, but is not limited to, cash problems, special assessments, and deferred maintenance.

- **Baseline Funding:** Establishing a reserve funding goal of allowing the reserve cash balance to never be below zero during the cash flow projection. This is the funding goal with the greatest risk due to the variabilities encountered in the timing of component replacements and repair and replacement costs.
- **Threshold Funding:** Establishing a reserve funding goal of keeping the reserve balance above a specified dollar or percent funded amount. Depending on the threshold selected, this funding goal may be weaker or stronger than “Fully Funded” with respective higher risk or less risk of cash problems.
- **Full Funding:** Setting a reserve funding goal to attain and maintain reserves at or near 100 percent funded. This is the most conservative funding goal.

It should be noted that in certain jurisdictions there may be statutory funding requirements that would dictate the minimum requirements for funding.

FUNDING PLAN: An association’s plan to provide income to a reserve fund to offset anticipated expenditures from that fund. The plan must be a minimum of twenty (20) years.

FUNDING PRINCIPLES: The reserve provider must provide a funding plan addressing these principles.

1. Sufficient funds when required
2. Stable contribution rate over the years
3. Equitable contribution rate over the years
4. Fiscally responsible

LIFE AND VALUATION ESTIMATES: The task of estimating useful life, remaining useful life, and current repair or replacement costs for the reserve components.

PERCENT FUNDED: The ratio, at a particular point in time related to the fiscal year end, of the actual (or projected) reserve balance to the fully funded balance, expressed as a percentage. While percent funded is

an indicator of an association's reserve fund size, it should be viewed in the context of how it is changing due to the association's reserve funding plan in light of the association's risk tolerance.

PHYSICAL ANALYSIS: The portion of the reserve study where the component inventory, condition assessment, and life and valuation estimate tasks are performed. This represents one of the two parts of the reserve study.

REMAINING USEFUL LIFE (RUL): Also referred to as "remaining life" (RL). The estimated time, in years, that a reserve component can be expected to serve its intended function. Projects expected to occur in the initial year have zero remaining useful life.

REPLACEMENT COST: The cost to replace, repair, or restore the component to its original functional condition during that particular year, including all related expenses (including but not limited to shipping, engineering and design, permits, installation, disposal, etc.).

RESERVE BALANCE: Actual or projected funds, as of a particular point in time that the association has identified, to defray the future repair or replacement cost of those major components that the association is obligated to maintain or replace. Also known as reserves, reserve accounts, cash reserves. Based on information provided and not audited.

RESERVE PROVIDER: An individual who prepares reserve studies. In many instances the reserve provider will possess a specialized designation such as the Reserve Specialist (RS) designation provided by Community Associations Institute (CAI). This designation indicates that the provider has shown the necessary skills to perform a reserve study that conforms to these standards.

RESERVE PROVIDER FIRM: A company that prepares reserve studies as one of its primary business activities.

RESERVE STUDY: A budget planning tool which identifies the components that the association is responsible to maintain or replace, the current status of the reserve fund, and a stable and equitable funding plan to offset the anticipated future major common area expenditures. The reserve study consists of two parts: the physical analysis and the financial analysis.

RESPONSIBLE CHARGE: A Reserve Specialist (RS) in responsible charge of a reserve study shall render regular and effective supervision to those individuals performing services that directly and materially affect the quality and competence of services rendered by the Reserve Specialist. A Reserve Specialist shall maintain such records as are reasonably necessary to establish that the Reserve Specialist exercised regular and effective supervision of a reserve study of which he or she was in responsible charge. A Reserve Specialist engaged in any of the following acts or practices shall be deemed not to have rendered the regular and effective supervision required herein:

1. The regular and continuous absence from principal office premises from which professional services are rendered; except for performance of field work or presence in a field office maintained exclusively for a specific project.
2. The failure to personally inspect or review the work of subordinates where necessary and appropriate;

3. The rendering of a limited, cursory or perfunctory review of plans or projects in lieu of an appropriate detailed review; and

4. The failure to personally be available on a reasonable basis or with adequate advance notice for consultation and inspection where circumstances require personal availability.

SPECIAL ASSESSMENT: A temporary assessment levied on the members of an association in addition to regular assessments. Note that special assessments are often regulated by governing documents or local statutes.

USEFUL LIFE (UL): The estimated time, in years, that a reserve component can be expected to serve its intended function if properly constructed in its present application or installation.

PHYSICAL ANALYSIS

The quantities used in the replacement cost estimates of the common elements were generated from the previous Capital Reserve Study for this community, which was performed by Falcon Group on June 1, 2014. The quantities of any added components were generated from field measurements. The remaining life expectancies of the common elements were determined through a visual site inspection of the Community on April 11, 2019 and through information provided by Holly Foley, Property Manager, and maintenance contractors familiar with the common elements of the Community. The common elements were identified by the previous Capital Reserve Study and through the experience of DWSA.

The current replacement costs were estimated utilizing published construction cost data as provided in the Bibliography section of this report and the average costs provided by contractors performing similar projects put out to bid by DWSA. The useful life and remaining useful life were estimated based on field inspection of the items and on the assumption that an adequate maintenance schedule exists and will be followed. Without proper maintenance, the common elements can deteriorate quickly and will require funds from the reserves for replacement earlier than planned.

It should be noted that this data is an estimate based upon experience of this firm. All work was performed pursuant to generally accepted standards of practice. Since accurate and detailed control over market conditions, usage, rate of deterioration, maintenance or weather conditions is not feasible, the actual costs and useful life expectancy may vary from those presented in this report. In the future updates of this report, adjustments will be made to correct any variations in the actual costs and useful life expectancies of the components of this report. It is recommended that the study be updated at least every three (3) to five (5) years.

**Arbor Terrace Condominium Association
Component Schedule Summary**

Effective Date: October 1, 2018

Project Number: 17-290.08

ITEMS	PERCENT FUNDED	REPLACEMENT	CURRENT	FUNDS NEEDED	ANNUAL FUNDING	FULL FUNDED BALANCE
		COST TOTALS	RESERVE FUNDS			
Sitework Components		\$257,263	\$40,349	\$216,913	\$62,817	\$175,816
Building Components		\$865,053	\$87,984	\$777,069	\$104,732	\$383,377
Electrical Components		\$34,705	\$2,846	\$31,859	\$2,564	\$12,403
Mechanical Components		\$360,912	\$23,820	\$337,092	\$17,329	\$103,791
Totals	23%	\$1,517,933	\$155,000	\$1,362,933	\$187,442	\$675,386

CAPITAL ITEMS / COMPONENTS

The following notes provide information on the location, condition and replacement cost of the components listed in the tables. The information is based on either visual observation or information provided to the preparer from the Association, their contractors or maintenance personnel. Review of the common elements was conducted by DW Smith Associates on April 11, 2019.

Sitework Components

ITEM	QUANTITY		COST PER UNIT	TOTAL COST	BEGINNING BALANCE	TYPICAL	ESTIMATED	NOTES
						USEFUL LIFE	REMAINING USEFUL LIFE	
Paving/Asphalt	3,164	SY	\$30.50	\$96,502	\$15,503	20	6	1
Paving/Sealcoating	3,164	SY	\$2.40	\$7,594	\$0	8	8	2
Dumpster Concrete	144	SF	\$14.30	\$2,059	\$435	25	2	3
Sidewalks 50%	1,878	SF	\$11.00	\$20,658	\$2,370	30	15	4
Concrete Curbs 25%	340	LF	\$30.80	\$10,472	\$1,923	30	6	5
Dumpster Fence	54	LF	\$55.00	\$2,970	\$55	25	23	6
Fence Gates	2	EA	\$522.50	\$1,045	\$19	25	23	6
Patio Concrete	2,388	SF	\$14.30	\$34,148	\$3,918	30	15	7
Wood Tie Planters	148	LF	\$27.50	\$4,070	\$785	25	4	8
Concrete Planter Boxes	73	LF	\$55.00	\$4,015	\$614	30	10	9
Stockade Fence	1,294	LF	\$36.30	\$46,972	\$10,349	25	1	10
Brick Entry Wall	95	LF	\$181.50	\$17,243	\$3,166	20	4	11
Wood Signage	1	LS	\$2,035.00	\$2,035	\$327	20	6	12
Irrigation	2	EA	\$1,925.00	\$3,850	\$442	10	5	13
Backflow Device	2	EA	\$1,815.00	\$3,630	\$444	15	7	13
Totals				\$257,263	\$40,349			

1. Asphalt Pavement:

The asphalt pavement was observed to be in fair condition at the time of the inspection. The unit cost for the new pavement is based on the average contractor bid proposals and includes 2" of milling and overlay and a percentage for reconstruction and engineering costs. The estimated remaining useful life is based on its condition.

2. Pavement Sealcoating:

It is recommended that asphalt pavement be sealed every (5) years to seal minor cracks and deficiencies through the freeze/thaw cycle. The price shown is for a product that provides protection against petroleum spills, such as gasoline, brake fluid, oil and engine coolant which has a destructive effect on asphalt.

3. Concrete Dumpster Pad:

The concrete pad at the trash container location was observed to be in poor condition and is incorporated with the curb system. The cost includes the removal of the curb section and a thickened concrete slab with reinforcing to incorporate the weight of the trash containers. The estimated remaining useful life is based in its condition.

4. Concrete Sidewalks 50%:

The concrete sidewalks were observed to be in good condition. The quantity is 50% of the total throughout the community which is the amount estimated to require replacement over the next 30 years. The cost represents removal and replacement. The estimated remaining useful life is based on replacement of the walks on an as needed basis.

5. Concrete Curbs 25%:

The concrete curbs were observed to be in fair condition. The quantity is 25% of the total throughout the community which is the amount estimated to require replacement over the next 30 years. The cost represents removal and replacement. The estimated remaining useful life is based on replacement of the curbs on an as needed basis. Generally, curbs are replaced during paving operations.

6. Fence Gates at Dumpster Pad:

The chain link fence and gates located at the trash enclosures was observed to be in good condition. The estimated remaining useful life is based on the condition of the fence and gates.

7. Patio Concrete:

The concrete patios in the rear of the buildings were observed to be in fair condition. The cost represents removal and replacement. The estimated remaining useful life is based on replacement of the patios on an as needed basis.

8. Wood Ties:

The wood timber tie planters located in the rear of the building 1 were observed to be in fair condition. The estimated remaining useful life is based on their condition. The unit cost includes replacement in kind.

9. Concrete Planter Box:

The brick and block planter wall located along the front of the building was observed to be in fair condition. The estimated remaining useful life is based on the condition. The unit cost includes replacement with a landscape block wall which has an extended useful life.

10. Stockade Fence:

The wood fence located along the property line of the north and east sides only was observed to be in poor condition. The estimated remaining useful life is based on the condition of the fence. The cost includes replacement with the same type wood fencing.

11. Brick Wall:

The brick wall along Greens Avenue was observed to be in poor condition. The estimated remaining useful life is based on its condition. Typically, walls of this type are constructed on concrete footings. The cost includes replacement of the brick wall built on the existing footing.

12. Wood Signage:

The sign located on the side of Building One (1) facing Greens Avenue was observed to be in fair condition. The small wood sign mounted to the brick wall along Greens Avenue was also observed to be in fair condition. The lump sum cost includes replacement of a wood sign for each location of similar size and style. The estimated remaining useful life is based on the condition of the signs. Wood signs of this nature generally require caulking and painting on a regular basis.

13. Irrigation:

The irrigation system was reported to be in good working condition by the on-site contractor, Growing Concerns, Inc. The cost includes new backflow preventors, controllers, zone valves and various head replacement. The estimated remaining useful life is based on replacement of the components on an as needed basis.

Building Components

ITEM	QUANTITY		COST PER UNIT	TOTAL COST	BEGINNING BALANCE	TYPICAL	ESTIMATED	NOTES
						USEFUL LIFE	REMAINING USEFUL LIFE	
Concrete Balconies	4	EA	\$6,050.00	\$24,200	\$222	25	24	14
Concrete Balconies	7	EA	\$6,050.00	\$42,350	\$8,942	25	2	14
Roof Shingles	150	SQ	\$405.00	\$60,750	\$6,971	30	15	15
Roof Shingles	150	SQ	\$405.00	\$60,750	\$11,618	30	5	15
Aluminum Gutters	591	LF	\$6.60	\$3,901	\$448	30	15	16
Aluminum Gutters	591	LF	\$6.60	\$3,901	\$746	30	5	16
Aluminum Leaders	315	LF	\$6.60	\$2,079	\$239	30	15	16
Aluminum Leaders	315	LF	\$6.60	\$2,079	\$398	30	5	16
Vinyl Soffit	3,678	SF	\$7.70	\$28,321	\$3,250	30	15	17
Balcony Railings	528	LF	\$91.78	\$48,460	\$9,268	30	5	18
Garage Doors	4	EA	\$1,127.50	\$4,510	\$776	20	5	19
Exterior Doors	4	EA	\$990.00	\$3,960	\$872	25	1	20
Exterior Doors	2	EA	\$990.00	\$1,980	\$218	25	13	20
Brick Façade 25%	12,445	SF	\$14.30	\$177,964	\$26,548	20	7	21
Wood Siding	120	SQ	\$660.00	\$79,200	\$16,359	30	3	22
Stucco Façade	11,000	SF	\$4.40	\$48,400	\$1,111	20	18	23
Breezeway Stair Assembly	11	EA	\$18,700.00	\$205,700	\$0	20	20	24
Breezeway Railings	11	EA	\$6,050.00	\$66,550	\$0	20	20	25
Breezeway Ceramic Tile	1,992	SF	\$0.00	\$0	\$0	20	20	26
Totals				\$865,053	\$87,984			

14. Concrete Balconies:

Four (4) of the second-floor concrete balconies located in the rear of the buildings have been replaced within the last year. One (1) was reportedly replaced 8-10 years ago. The balance of the balconies were observed to be in poor condition. Two of the balconies that are in poor condition were observed to have temporary shoring constructed underneath. The cost was based on the most recent replacement invoice provided by Jesan Construction. The estimated remaining useful life is based on the condition of the balconies.

DWSA Reference No. 17-290.08

Project Name: Arbor Terrace Condominium Association

Capital Reserve Study Update

15. Asphalt Roofing Shingles:

The roof shingles on both buildings were observed from the ground to be in poor condition. The unit cost is based on average contractor proposals and includes removal of old shingles, replacement with laminated shingles and six (6%) percent for engineering costs but does not include any roof sheathing replacement. The estimated remaining useful life is based on the condition. The item has been separated into two phases to allow the association to accumulate funds.

16. Aluminum Gutters and Leaders:

The aluminum gutters and leaders were observed to be in fair condition. The unit cost is based on average contractor bid proposals. The estimated remaining useful life is based on the roofing replacement which is generally when gutters and leaders are replaced. It is recommended the gutters and leaders be replaced at the same time as roofing operations.

17. Vinyl Soffit:

The existing vinyl soffit was observed to be in fair condition. The unit cost includes removal and replacement in kind. The estimated remaining useful life is based on its condition.

18. Balcony Railings:

The existing railings on the balconies were observed to be in poor condition. The unit cost includes removal and replacement in kind and was provided by the association. The estimated remaining useful life is based on its condition.

19. Garage Doors:

The garage doors located in the storage and boiler room building were observed to be in fair condition. The unit cost includes removal and replacement with a non-insulated, raised panel garage door. The estimated remaining useful life is based on the condition of the doors.

20. Exterior Doors:

The exterior doors located in the storage and boiler room building and at each basement entry were observed to be in fair to poor condition. The cost includes replacement with a steel 9 light, raised panel door similar to the two replaced at the laundry room and boiler room locations. The estimated remaining useful life is based on the condition of the doors.

21. Brick Façade 25%:

The brick façade of both buildings was observed to be in fair condition. The quantity represents 25% of the façade total which is the expected amount of restoration required over the next 30 years. The unit cost includes repointing and various brick replacement as needed. The estimated remaining useful life is based on the condition.

22. Wood Siding:

The painted wood siding located on the rear and front walls of each unit was observed to be in fair condition. The unit cost includes removal and replacement with similar type siding. The estimated remaining useful life is based on the condition.

23. Stucco Facade:

The stucco façade located in all front entry breezeways and rear separation walls was observed to be in good condition. The breezeway walls were recently restored during the stair and railing replacement project. The rear walls were observed to be in good condition and are slightly restored when a balcony is replaced. The unit cost includes some plaster replacement, application of an elastomeric coating and caulking. The estimated remaining useful life is based on its condition.

24. Breezeway Stair Assembly:

The breezeway stair assemblies were recently restored and/or replaced including various steel support replacements, steel deck replacement, various tread replacement, restoration of the remaining treads and landings, epoxy sealant and coatings throughout. The estimated remaining useful life is based on the restoration project of 2018. The cost was provided by Jesan Construction.

25. Breezeway Railings:

The railings at all breezeways were replaced during the stair assembly project. The cost includes replacement with similar type aluminum railings. The estimated remaining useful life is based on replacement project in 2018. The cost was provided by Jesan Construction.

26. Ceramic Tile:

Prior to the breezeway stair replacement and restoration project some of the breezeway landings had ceramic tile. The new design did not include any tile replacement. The item has been included on this report for informational purposes only and has been zeroed out.

Electrical Components

ITEM	QUANTITY		COST PER UNIT	TOTAL COST	BEGINNING BALANCE	TYPICAL	ESTIMATED	NOTES
						USEFUL LIFE	REMAINING USEFUL LIFE	
Building Mounted Lighting	16	EA	\$440.00	\$7,040	\$808	20	10	27
Site Lighting	12	EA	\$1,650.00	\$19,800	\$1,136	20	15	28
Breezeway Lighting	11	EA	\$495.00	\$5,445	\$625	20	10	29
Smoke Detectors	10	EA	\$242.00	\$2,420	\$278	20	10	30
					\$34,705	\$2,846		

27. Building Mounted Lighting:

The exterior lighting located throughout the community was observed to be in good condition and includes the lighting under the soffits, lighting located on each end of the buildings, the spot light located over the sign on the side of Building One (1) and the exterior lighting located on the garage building. The estimated remaining useful life is based on replacement of the fixtures on an as needed basis.

28. Site Lighting:

The pole mounted lights located in front of each breezeway along the entry sidewalks were observed to be in fair condition. The estimated remaining useful life is based on replacement of the fixtures on an as needed basis. The cost includes all eleven lights located front of the breezeways and the one light mounted on top of the brick wall along Greens Avenue.

29. Breezeway Lighting:

The surface mounted lighting located on the ceiling at each breezeway was observed to be in good condition. The cost includes replacement of the lighting in kind. The estimated remaining useful life is based on replacement of the fixtures on an as needed basis.

30. Smoke detectors:

The smoke detectors located in the basements of each building were reported by management to be working properly. The estimated remaining useful life is based on replacement of the detectors on an as needed basis.

Mechanical Components

ITEM	QUANTITY		COST PER UNIT	TOTAL COST	BEGINNING BALANCE	TYPICAL	ESTIMATED	NOTES
						USEFUL LIFE	REMAINING USEFUL LIFE	
Sump Pumps	8	EA	\$550.00	\$4,400	\$505	20	10	31
Underground Heat Piping Fund	1	LS	\$50,000.00	\$50,000	\$5,737	30	15	32
Boiler System	2	EA	\$140,165.00	\$280,330	\$15,012	30	23	33
Hot Water Heaters	2	EA	\$7,591.00	\$15,182	\$1,219	20	13	34
Well Pumps	2	EA	\$5,500.00	\$11,000	\$1,346	15	7	35
Totals				\$360,912	\$23,820			

31. Sump Pump:

The sump pumps located in the basement of both buildings were reported to be in good working condition by the onsite building maintenance technician. The unit cost includes removal and replacement with a pump of similar characteristics. The estimated remaining useful life is based on replacement on an as needed basis.

32. Underground Piping Fund:

Based on the previous reserve study performed in 2014 the underground heat piping fund has been carried over to this report. The estimated remaining useful life is based on piping repair and/or replacement on an as needed basis.

33. Boiler System and Mechanical Equipment:

The hot water boilers located in the mechanical room of the garage building were replaced in 2012. The cost includes replacement of the two hot water boilers, circulator pumps and valves and was calculated based on RS Means Historical Cost Index. The estimated remaining useful life is based on the age of the equipment.

34. Water Heaters:

The indirect water heaters located in the boiler room were replaced in 2012 along with the boilers. The cost includes the storage tanks, expansion tanks and circulator pumps and was calculated based on RS Means Historical Cost Index. The estimated remaining useful life is based on the age of the equipment.

35. Well Pumps:

The two well pumps in the community were reported to be in average working condition by the onsite maintenance department. The cost includes replacement of a ½ HP stainless steel deep well submersible pump 10 GPM. The estimated remaining useful life is based on their age.

FINANCIAL RESULTS

The primary goal of capital reserve planning is to provide adequate funding for the replacement of the capital components within the community. Good planning will distribute the expenditures for these projects among the owners over many years, making the funds available when they are needed. An adequate capital reserve fund will eliminate the need for large fee increases, special assessments and loans.

Averaging the annual contributions provides consistent maintenance fees which is beneficial to homeowners and property values.

Current Funding is the beginning balance with the current annual contribution added and the projected expenses subtracted each year of the projection. The beginning balance and current annual contribution of 155,000 and \$50,000.00 were provided by Holly Foley, Property Manager. Current funding demonstrates the balances over the projection period with no change in the annual contribution.

Full Funding is the annual contribution and fund balances for each year as if each component were Fully Funded. Full funding is the amount necessary so each component will accrue its full replacement cost during its remaining life expectancy.

Threshold Funding was not provided due to a low projected balance of \$209,527 in 2019.

The chart shown on the following page is a 30-year projection of the funding requirements for Arbor Terrace Condominium Association. This reserve study funding chart includes two funding options: Full Funding and Current Funding.

Please note the following financial information for Arbor Terrace Condominium Association:

- Current Annual Contribution is \$50,000.00
- The Full Funding Annual Contribution for 2019 is \$187,442.
- The Full Funding Average Annual Contribution is \$105,459 for the first 12 years and \$65,468 for the last 18 years, which is \$55,459 more for the first 12 years and \$15,468 more for the remaining 18 years.

**Arbor Terrace Condominium Association
Reserve Study Funding Plan
Thirty Year Cash Flow**

Effective Date: October 1, 2018

Fiscal Year	Current Funding			Full Funding Analysis		
	Current Contribution	Annual Expenditures	Ending Balance	Annual Contribution	Average Annual Contribution	Ending Balance
2018	\$50,000		\$155,000			155,000
2019	\$50,000	\$50,932	\$154,068	\$187,442	105,459	\$209,527
2020	\$50,000	\$44,409	\$159,659	\$159,710	105,459	\$270,576
2021	\$50,000	\$79,200	\$130,459	\$145,852	105,459	\$296,835
2022	\$50,000	\$21,313	\$159,146	\$117,897	105,459	\$380,981
2023	\$50,000	\$123,549	\$85,597	\$120,597	105,459	\$362,890
2024	\$50,000	\$109,009	\$26,588	\$100,412	105,459	\$359,340
2025	\$50,000	\$192,594	-\$116,006	\$90,215	105,459	\$272,205
2026	\$50,000	\$7,594	-\$73,599	\$69,320	105,459	\$370,070
2027	\$50,000	\$0	-\$23,599	\$68,783	105,459	\$475,529
2028	\$50,000	\$23,320	\$3,081	\$69,252	105,459	\$557,668
2029	\$50,000	\$0	\$53,081	\$67,959	105,459	\$663,127
2030	\$50,000	\$0	\$103,081	\$68,067	105,459	\$768,585
2031	\$50,000	\$17,162	\$135,919	\$68,385	65,468	\$816,892
2032	\$50,000	\$0	\$185,919	\$68,243	65,468	\$882,360
2033	\$50,000	\$223,507	\$12,412	\$69,434	65,468	\$724,322
2034	\$50,000	\$7,594	\$54,818	\$65,699	65,468	\$782,197
2035	\$50,000	\$0	\$104,818	\$65,656	65,468	\$847,665
2036	\$50,000	\$48,400	\$106,418	\$65,825	65,468	\$864,733
2037	\$50,000	\$0	\$156,418	\$65,528	65,468	\$930,202
2038	\$50,000	\$272,250	-\$65,832	\$65,871	65,468	\$723,420
2039	\$50,000	\$0	-\$15,832	\$64,677	65,468	\$788,888
2040	\$50,000	\$14,630	\$19,538	\$64,719	65,468	\$839,727
2041	\$50,000	\$284,345	-\$214,807	\$64,806	65,468	\$620,850
2042	\$50,000	\$49,036	-\$213,843	\$64,335	65,468	\$637,282
2043	\$50,000	\$8,360	-\$172,203	\$64,284	65,468	\$694,391
2044	\$50,000	\$149,469	-\$271,672	\$64,307	65,468	\$610,390
2045	\$50,000	\$222,373	-\$444,045	\$64,239	65,468	\$453,486
2046	\$50,000	\$0	-\$394,045	\$64,141	65,468	\$518,954
2047	\$50,000	\$4,070	-\$348,115	\$64,141	65,468	\$580,352
2048	\$50,000	\$19,305	-\$317,420	\$64,142	65,468	\$626,516
TOTAL	\$1,500,000	\$1,972,420		\$2,443,935	\$2,443,935	

DWSA Reference #: 17-290.08

Project Name: Arbor Terrace Condominium Association

Project Type: CRSU

EXPENDITURE SCHEDULE

Item	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Sitework Components																														
Paving/Asphalt	0	0	0	0	0	96,502	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96,502	0	0	0	0
Paving/Sealcoating	0	0	0	0	0	0	0	7,594	0	0	0	0	0	0	0	7,594	0	0	0	0	0	0	0	7,594	0	0	0	0	0	0
Dumpster Concrete	0	2,059	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,059	0	0	0
Sidewalks 50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,658	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete Curbs 25%	0	0	0	0	0	10,472	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dumpster Fence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,970	0	0	0	0	0	0	0
Fence Gates	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,045	0	0	0	0	0	0	0
Patio Concrete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34,148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wood Tie Planters	0	0	0	4,070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,070	0
Concrete Planter Boxes	0	0	0	0	0	0	0	0	0	4,015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stockade Fence	46,972	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46,972	0	0	0	0	0
Brick Entry Wall	0	0	0	17,243	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17,243	0	0	0	0	0	0
Wood Signage	0	0	0	0	0	2,035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,035	0	0	0	0	0
Irrigation	0	0	0	0	3,850	0	0	0	0	0	0	0	0	0	3,850	0	0	0	0	0	0	0	0	0	3,850	0	0	0	0	0
Backflow Device	0	0	0	0	0	0	3,630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,630	0	0	0	0	0	0	0	0
Building Components																														
Concrete Balconies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,200	0	0	0	0	0	0	0
Concrete Balconies	0	42,350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42,350	0	0	0	0
Roof Shingles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60,750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roof Shingles	0	0	0	0	60,750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum Gutters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum Gutters	0	0	0	0	3,901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum Leaders	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,079	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum Leaders	0	0	0	0	2,079	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vinyl Soffit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28,321	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Balcony Railings	0	0	0	0	48,460	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Garage Doors	0	0	0	0	4,510	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,510	0	0	0	0	0	0
Exterior Doors	3,960	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,960	0	0	0	0	0
Exterior Doors	0	0	0	0	0	0	0	0	0	0	0	0	1,980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brick Façade 25%	0	0	0	0	0	0	177,964	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	177,964	0	0	0
Wood Siding	0	0	79,200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stucco Façade	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48,400	0	0	0	0	0	0	0	0	0	0	0	0	0
Breezeway Stair Assembly	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	205,700	0	0	0	0	0	0	0	0	0	0	0
Breezeway Railings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66,550	0	0	0	0	0	0	0	0	0	0
Breezeway Ceramic Tile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Components																														
Building Mounted Lighting	0	0	0	0	0	0	0	0	0	7,040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,040
Site Lighting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Breezeway Lighting	0	0	0	0	0	0	0	0	0	5,445	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,445
Smoke Detectors	0	0	0	0	0	0	0	0	0	2,420	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,420
Mechanical Components																														
Sump Pumps	0	0	0	0	0	0	0	0	0	4,400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,400
Underground Heat Piping Fund	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Boiler System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	280,330	0	0	0	0	0	0	0
Hot Water Heaters	0	0	0	0	0	0	0	0	0	0	0	0	15,182	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well Pumps	0	0	0	0	0	0	11,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11,000	0	0	0	0	0	0	0	0
Yearly Totals	50,932	44,409	79,200	21,313	123,549	109,009	192,594	7,594	0	23,320	0	0	17,162	0	223,507	7,594	0	48,400	0	272,250	0	14,630	284,345	49,036	8,360	149,469	222,373	0	4,070	19,305

RECOMMENDATIONS

The following recommendations are based on our review of the community and information provided by the Association and other representatives of Arbor Terrace Condominium Association. It is our understanding, the components, their condition and replacement cost have been reviewed and approved by the Association. DW Smith Associates recommends the following:

Financial Recommendation

The Current Annual Contribution of \$50,000.00 is inadequate and if not increased will cause a low balance in 2019 and deficits starting in 2025.

DWSA recommends increasing the annual contribution to \$105,459 in 2019 thru 2030 and \$65,468 for 2031 thru 2048 as shown on the Reserve Study Funding Plan under Full Funding.

A threshold funding option could not be considered due to the low balance of \$209,527 occurring in 2019

Updating the Reserve Study

DWSA recommends the association update the reserve study every 2 to 3 years. Regular updates will help avoid the necessity of large increases in the future.

Final Statements

In the opinion of DW Smith Associates, the components and conditions at the Arbor Terrace Condominium Association are accurately represented. This opinion is based on the information provided by the Association and other sources noted within the report.

There are several variables that affect the useful lives and replacement costs of the common components. Economic forces including material and labor prices, the overall economy, the construction industry and local conditions can have an effect on costs. Weather, maintenance procedures, usage and other factors will affect the longevity or life expectancy of the components.

This report is a financial budgetary tool and should not be used for the purposes of contracting or bid proposals. The replacement costs utilized within this report were derived from comparable projects, and other sources listed in this report. The costs used are intended to replace the component with materials of similar quality. Information regarding the costs and quality of the components are included where necessary. Unforeseen conditions can have an adverse effect on projected costs and therefore more costly to replace than planned.

DISCLOSURES

DW Smith Associates, LLC (DWSA) is not aware of any involvement with the Arbor Terrace Condominium Association which could result in any actual or perceived conflict of interest which would influence the preparation of this reserve study update.

The physical on-site observations which were performed in the preparation of this study were cursory in nature and only included the accessible common and limited common elements. The surfaces of the roofs were not walked unless specifically noted within this report and no invasive testing was employed.

Unless specifically noted within this report, DW Smith Associates, LLC has not utilized any assumptions in regard to interest, inflation, taxes or any other outside economic factors. Please note interest and inflation assumptions if chosen are noted in in the Cashflow and Financial Calculations pages.

This study has been prepared under the direction of Lynn Voorhees RS.

Update reports are reliant on the information provided in the previous report.

DW Smith Associates, LLC is not aware of any material issues, which if not disclosed, would cause a distortion of the Association's situation.

Information provided by the official representative of the Association regarding financial, physical, quantity, or historical issues will be deemed reliable by DW Smith Associates, LLC. The reserve study will be a reflection of information provided to the consultant and assembled for the Association's use, not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records.

The Reserve Study will be a reflection of information provided to the consultant and assembled for the Association's use, not for the purpose of performing an audit, quality/forensic analysis or background checks of historical records.

The actual or projected total presented in the Reserve Study is based upon the information provided and was not audited.

Information provided to DW Smith Associates, LLC about the reserve project will be considered reliable. Any on-site inspection should not be considered a project audit or quality inspection.

The items included in the Component Inventory are based on information provided the previous reserve study and by the associations managing agent, Holly Foley of Regency Management Group. The quantities have not been field measured by a representative of DW Smith Associates, LLC unless specifically noted.

BIBLIOGRAPHY

- 1) Previous Reserve Study Update for Arbor Terrace Condominium Association
Prepared by Falcon Group
Dated June 1, 2014

- 2) Best Practices for Reserve Studies/Management
By the Foundation for Community Association Research
Dated 2014.

- 3) National Reserve Study Standards
By the Community Associations Institute
Dated 2017.

- 4) Cost Works
By R.S. Means Company
Dated 2019

- 5) Common Interest Realty Association Audit and Accounting Guide
By the American Institute of Certified Public Accountants
Dated 2006

Rev. 6/18/2019